



INSIGHT on Coinage

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EDITORIAL

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Questions are important for learning. For example, In mid-July of this year, I was guest speaker at the monthly meeting of the Montgomery County (Maryland) Coin Club. Instead of giving a prepared speech, I tried a question & answer format to give every club member the opportunity to ask any questions they might have on authentication or grading; but it does take one or two "brave souls" to ask the first questions.

Two things occurred (as they invariably do) which I'll never understand. No one wants to ask the first question AND after the forum is over, members of the audience either come up asking great questions which would have benefitted everyone to hear or ask me why I didn't cover a specific topic. WHY DIDN'T YOU JUST ASK!

We all can't be born with the numismatic knowledge of Walter Breen. Learning is a process that must occur over time, either by trial and error OR, if you are lucky, through questions asked of a good teacher who knows the subject. I got over my reluctance and shyness about questioning teachers or experts at an early age. I had teachers who encouraged questions. I also realized that many of my classmates had the same questions as I, but were afraid to ask. Good teachers like questions. It shows the class is flowing with the subject. Everyone has questions, so the next time you do, ASK. If it's a question concerning something you read in this newsletter or in my correspondence course, ASK. I'll either give you the correct answer, or say I'm not sure, and then find the correct answer for you. We all learn from questions.

Look inside for my review of a new ANA educational video, Grading Mint State Coins with J.P. Martin. The video should answer some of the questions you always wanted to ask an expert.

ADVICE AND DISSENT

I received a letter from Susan L. Maltby, a professional conservator and regular columnist for Coin World, who has recently reported the results of a survey on coin cleaning. After reading some of my comments on cleaning she had this to say: "I feel that I must take you to task on one thing though. In Issue #15 of Insight on Coinage, you told readers: 'Please do not wash your coins in anything ... I would hate to think what soap and water ... will do to your coins.' Ms. Maltby goes on to say, "Washing coins in a mild soap and distilled water is a perfectly acceptable treatment which I and other conservators often recommend. A simple wash in soap and water will remove much of the surface grime and oils which can harm a coin. As long as people properly rinse their

coins and dewater them with an appropriate solvent then I see no reason not to recommend this treatment. I would much rather have people wash their coins than dip them in a coin dip!"

Susan is correct. Soap and water will not harm your coins. If it is used PROPERLY, removed PROPERLY, and the coin is dried PROPERLY; but as I say in newsletter #15, washing implies rubbing a coin with soap and water either with a washcloth or between the fingers. As soon as the average collector or non-collector read that it was OK to wash their coins, I'll bet thousands of coins were ruined by IMPROPER washing (cleaning). I shudder to think how many coins will be ruined if this practice becomes more widespread! That's why I tackled this subject in Insight. I have always agreed with Ms. Maltby's opinion that PROPER cleaning is helpful and can only preserve coins. Unfortunately, few collectors or dealers are qualified to perform the job. Based on my dealings with professional graders, numismatists, and dealers, I have found that many cannot distinguish the difference between a natural looking coin with no impairment due to cleaning and a buffed-up, professionally altered, or incorrectly cleaned coin! Those are strong words but I can prove them. Even now, many of my former students are quietly selecting nice, original or properly cleaned coins from the typical coin show fare.

I would also bet that many of this country's professional conservators would be amazed at the effects that washing a coin in soap and water can have - especially when the results of their efforts are viewed at 7X with a stereo microscope! After saying this, and after I admit that I've even washed proof gold Liberty \$5, \$10, and \$20 coins in mild soap and distilled water to remove surface fogging without leaving any residue, hairlines, or trace of cleaning, I will again repeat my caution. Please do not wash your coins in anything - unless you are a professional coin cleaner, conscientious conservator, or someone like me who has learned the correct methods through years of trials and errors (ruined coins).

If you are going to clean coins, learn the PROPER methods.

BACK TO BASICS

- * Luster: The quality of the light reflection from the surface of an object.

A coin's luster is useful in authentication and is usually one of its first characteristics we recognize. Until recently (See Counterfeit Update), the luster of the majority of counterfeit coins was not "mint quality" (MQ). This is slang authenticators use to describe the overall-look of genuine coins which results from a combination of their macro and micro characteristics. Put simply, genuine coins look real because of their composition, the preparation of their dies and planchets, and other specifics of the minting process such as striking pressure. Much of a coin's MQ manifests itself as its luster. I cover this and other aspects of MQ in greater detail in my correspondence courses.

While useful for authentication, luster is probably the most important criteria used to determine if a coin is uncirculated.

Virtually every coin has luster because of the reflective nature of metal. Even old copper coins, darkly toned, or cleaned coins still reflect light; but with a much different look than uncirculated or "original" coins. This is because there is another element of a coin's surface which modifies the reflection of light. Coins are made under tremendous pressure. Even though the dies are made of hardened steel and the usual coinage metals of silver, gold, and copper alloys are soft, the continual striking of planchets with an associated movement of metal across the surface of the die, causes deterioration of the steel die face. Evidence of this shows as tiny spikes, then minute ridges which form in a pattern from the center of the die toward its edges. Peculiarities of a die's design will also influence this pattern of erosion. During striking, planchet metal fills these cavities producing ridges on the surface of coins struck from these dies. The microscopic ridges on the coin are called "radials" since they tend to radiate from the center of a coin like spokes of a wheel. The reflection of light from the radials (especially when they are at right angles to its source) is seen as a cartwheel or propeller effect of light and dark on the surface of a coin when it's moved in relation to the light. As the dies become more worn, with an increased number of coins struck, the grooves in the die grow larger, and radials on the coin become larger and more noticeable. The quality of a coin's radials helps to determine the "type" of mint luster it exhibits as well as its originality. Fresh, unimpaired radials on a coin = original "mint luster". Cleaning, or any surface abrasion will begin to destroy this quality as the radials become damaged. Not all coins have prominent radials. Those with a Proof or Proof-like surface are the result of freshly polished, new, or smooth dies which impart a flat mirror-like surface to the coins they strike. This effect may not last long unless the dies are re-polished.

Fig. 1



Figure 1 shows two Bust halves which appeared at auction recently. Look at the bright areas in the fields around the stars, inside the letters of Liberty, under the ear, between the folds of the cap, etc. These are areas where the luster remains. The grey areas on the cap, hair, bust, and especially the cheek and hair over the ear are areas which may have "seen friction". These areas will reflect

light from any bright light source, but the quality of the shine (luster) will be different from parts of the coin with original surfaces and radials intact. Now you see one of the problems with value grading. These coins probably brought a good price at the auction - as they should; but for some people, calling them strict Uncirculated - free from any trace of wear (with full mint luster), is stretching the definition.

Fig. 2



Radials

Wear

Figure 2 shows a close-up of a Bust half dollar. The bright area in the photograph, around the stars, relief, and inside the letters, is caused by the coin's mint luster. If you look between the stars, you'll see the minute ridges made by some of the larger radials. Once you learn what natural mint luster looks like, you will be able to detect the dull look of improperly cleaned, over-dipped, and worn coins.

Luster is so important for grading because almost anything you do to a coin's surface will ruin it's originality - even careless washing with soap and water! By studying the high points of a coin's design, including its rim, you will know where to watch for the first signs of impaired luster due to circulation or mishandling. Looking at figure 2 again, the flat grey area over the eye and up to the hair curls shows the dull grey color where the coin's original surface has been destroyed due to circulation.

I advise all my students to purchase an uncirculated Carson City silver dollar in a government sealed plastic case as an example of original mint luster. The frosty surface luster is similar to 90% of the silver and gold coins minted by the U.S.

Learn what original mint luster looks like!

COUNTERFEIT UPDATE

This is the first report on many of the counterfeits I've seen these past two months. Some are really deceptive fakes while others are not. Some may have been published before in reports or articles by other groups. I've devised a rating system using numbers to refer to three generalized groups of people. The numbers will indicate my opinion of how deceptive each fake will be to members of these groups. The first number refers to professional authenticators or highly skilled numismatists (I have yet to meet any coin dealer who doesn't THINK they belong to this category!). Also remember that a highly skilled numismatist in one field, say large cents, may not know the first thing about gold coins. Group two includes those dealers and collectors who have studied all the ANA Counterfeit Detection Reprints and who read the major coin newspapers which publish columns on detecting fakes and articles on coin production and new varieties. Members of this group will have also attended at least one counterfeit detection seminar. My final group will comprise all other dealers, collectors and investors with a good familiarity with numismatics in general. I do not have a fourth group for non-collectors because most fakes on the market will fool any non-collector and often members of group three. Many fakes will also fool members of group two and three even if given a comparison piece. Ease of detection for each person depends on how well they have trained themselves to examine coins and their level of experience with coins and expertise in authentication. Occasionally a counterfeit will be "state-of-the-art" and fool everyone until it is detected.

I'll use numbers from one to five to indicate the quality of each fake and ease of detection for each group:

- 5) Extremely Deceptive - looks real, not apparent fake even when examined closely, may pass experts for awhile.
- 4) Very Deceptive - looks real until examined very closely.
- 3) Deceptive - looks OK, "gut" feeling it's possibly bad.
- 2) Moderately Deceptive - looks OK, "gut" feeling it's bad.
- 1) Not Deceptive - looks bad.
- 0) Poor - looks terrible, obvious fake.

For example, a coin with a ranking of 4/5/5 or even 2/4/5 would be considered a dangerous fake by the numismatic community, while a trained authenticator would view the first example as good and the second example as no challenge. The rating scale for each fake changes as soon as diagnostics of the fake are published since members of group two will recognize it.

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It's going to be a lot harder detecting Indian \$2 1/2 gold counterfeits with a hand lens or by eye because the surface luster of the newer fakes in this series is practically identical to that of the genuine coins! This comes after two decades of improvement by the counterfeiters.

The early fake Indians were the wrong color. Low quality gold plus very crude die work and style gave them a "mushy" look. These fakes would rate 0/0/2 today. These early struck fakes were

so crude that some "Ex-pert" authenticators were teaching students that the coins were made by casting rather than struck with dies (as was the case). Later the style of the fakes was improved but the color was still "off". Those lucky enough to have access to a genuine comparison coin could spot a difference immediately. The fakes continued to improve in style with much "sharper" execution. As soon as a market existed for good quality numismatic fakes, the proper gold alloy was used. This gave the fakes the correct color but the "luster" remained slightly dull and "washed-out". It did not have what we referred to as "Mint Quality", probably due to the preparation of the counterfeit dies. Nevertheless, counterfeits of this period would rank as 2/4/5. Examples of fakes in this group can be seen in the ANA Counterfeit reprints. These are the coins with a patch of horizontal die scratches on the indian's neck. They were very dangerous until their diagnostics were revealed. At the time they were discovered, the major difference between these fakes and the genuine coins was a slight lack of "flash" caused because the recesses of the incuse design lacked "mint quality" luster. I would teach students to detect these fakes by their lifeless look.

Based on a group of counterfeit \$2 1/2 Indian coins which I have examined this month at PCI, the newest fakes could have a 4/4/5 rating. I'm amazed that their "mint quality" is virtually identical to genuine coins. There is no need to print a photo of these here because most of their diagnostics have already been published; but I believe that as soon as new fake dies are made with none of the usual defects, these coins will rate 5/5/5 for awhile!

Now we'll look at an older fake in the Commemorative series. I only give it a 0/1/2 rating. The photographs below show the date area of a Panama Pacific Commemorative half dollar. If you guessed that the coin on the left is the fake, you'll understand why I do not think this coin is very deceptive.



Finally, a 1928 Hawaiian half dollar counterfeit has also been seen without the diagnostic crater-like, circular depression in the field above the out-stretched hand. Rate this possibly a 1/2/4.

This fake lacks the round depression in the field above the wrist seen on one common counterfeit.



MARKET NOTES

The coin business has not recovered fully. Several dealers who always have tables at the ANA Convention were only attending for a few days and were seen walking the floor. While they saved overhead expenses during this period of slow activity, I hope they are able to return to the bourse without any problems when the economy gets better.

Collectors were doing most of the buying. Their purchases could be classified as random and spread over a wide area. I did hear that Bust Half dollar collectors were keeping that segment of the market hot. Dealers were more interested in filling want lists than buying coins for inventory even though bargains were all over.

Variety collectors did well. One collector submitted a 1946 doubled die reverse half dollar for grading which he cherry-picked at the show for \$35. I'm also researching a new variety I found on a Commemorative. I'm sending J.T. Stanton a photograph of the coin so that it might be in the next edition of the Cherry-pickers Guide. I'll publish it in Insight soon. Speaking of J.T., he found what I consider to be the "find" of the show - the second known example of the 1877/6 Seated Liberty half! Readers of my newsletter may recall me writing about this variety a year ago. Persistence pays off in variety hunting!

One last note in a humorous vein. A dealer friend of mine from the Washington, D. C. area called me to his table to examine a "new" variety of 42/1 Mercury dime which a collector had brought to the show. The collector reported that seven dealers had looked at the coin; five thought it was good while two didn't. I put a hand lens on the coin and saw a thick, dark fiber or piece of lint inside the 2. I received permission to remove the coin from its 2X2 holder to move the "so-called" variety. As I did, it vanished. I felt sorry for the collector because I spoiled his new "find" which had brought him so much enjoyment and hope. I was able to recognize almost immediately what fooled others because previously, I have seen these freaks of nature on the surface of coins while using a stereo microscope. Get the idea? Because I'm familiar with the characteristics of a coin's surface and the appearance of

foreign material at magnifications of 7X to 80X, I was easily able to recognize the same objects when using a 10X hand lens.

ANA GRADING VIDEO REVIEW

I was asked to preview a new ANA educational video, Grading Mint State U.S. Coins with J.P. Martin. J.P. is a former ANACS authenticator who now heads the ANA Authentication Bureau. The video is excellent. J.P. teaches with close-up views of actual coins, making the viewer feel as if they are in a private seminar receiving his personal instruction.

The video begins with a review of commercial and technical grading. Characteristics such as strike, luster, bagmarks, and eye-appeal used to grade mint state coins are shown. Next, J. P. discusses the defects found on coins which will not affect their technical grade but which lower their commercial grade.

The second part of the video is a grading exercise based on the ANA Grading Guide standards. J.P. discusses the grading of gold, and portrait coins such as Morgan dollars. In each example he shows the criteria used to arrive at the ANA grade. Parts of this section are not applicable to the grading being done by PCGS, NGC, or PCI. I feel these services have become too conservative when their grading is compared to the descriptions for some mint state grade in the ANA video or grading guide. For example, ANA grading will allow an MS-66 coin to have "Several small (contact marks); a few may be in prime focal areas". You won't often find a non-generic coin like that in an MS-66 slab. I'll discuss this conservative approach to grading when I write the article about the "new" Uncirculated grades which I promised.

My favorite part of the video was the musical introduction which traced the history of grading and several of the innovative shots used to illustrate the narrative. You'll actually get to see the "Cartwheel" effect on a coin's surface as it is rotated through a light source.

The video is available for about \$39 from the ANA. I do not know if you can borrow copies from the ANA library yet.

COMING

I'll trace the development of my "Die Scratch Method of Coin Authentication" which I have mentioned in several past articles. I also plan to expose a terrible error concerning the grading of Morgan dollars in one of the grading guides. This is the article I promised for you at the end of last year but I waited until I had talked about mint luster, magnification, and lighting so that some of you would be more prepared to TEST my claims for yourself. You won't want to miss the next issue of Insight.

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